FIG.1

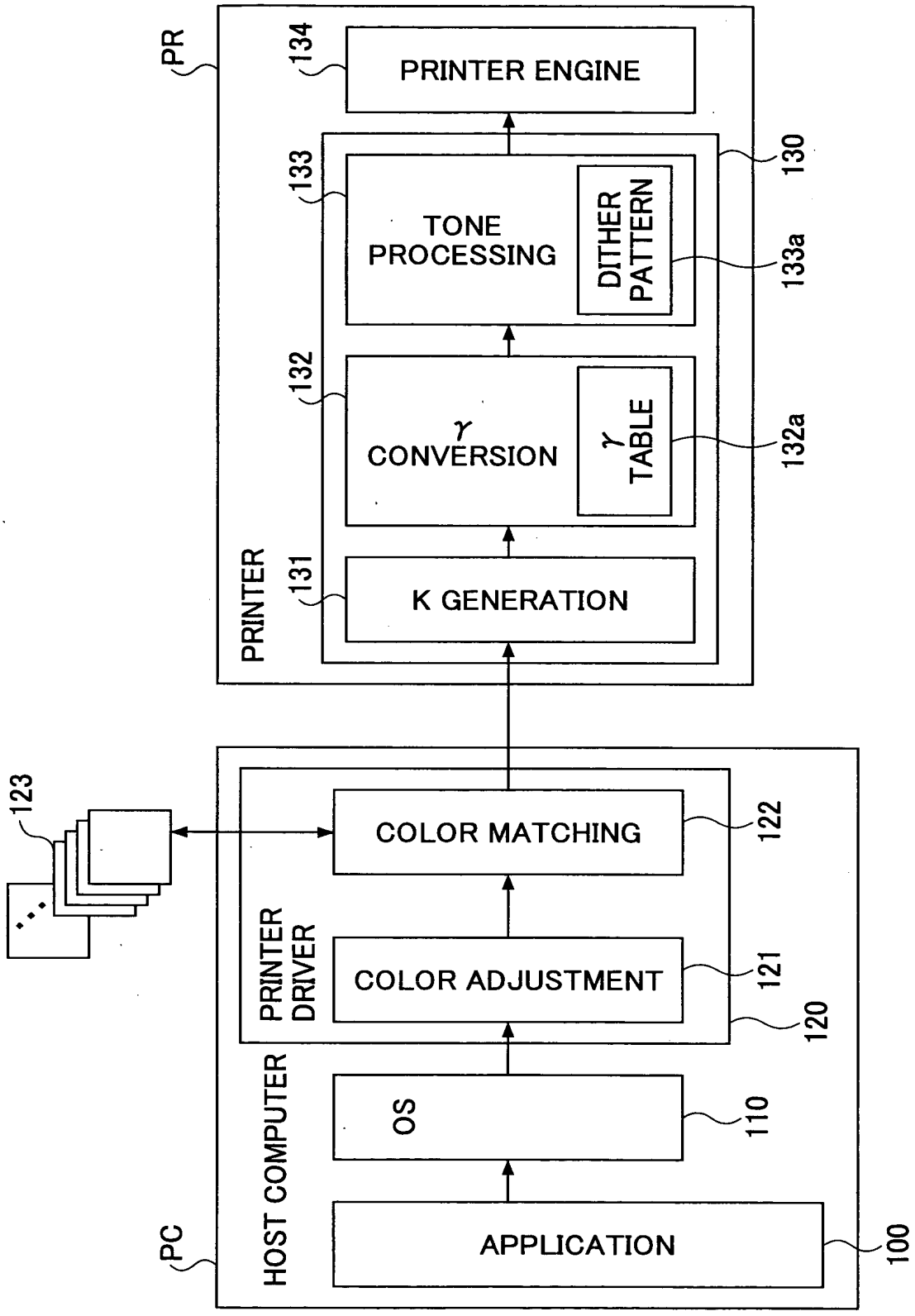

PR
134
PRINTER ENGINE
133
TONE PROCESSING
DITHER PATTERN
133a
130
132
γ CONVERSION
γ TABLE
132a
PRINTER
131
K GENERATION
123
COLOR MATCHING
122
PRINTER DRIVER
COLOR ADJUSTMENT
121
120
HOST COMPUTER
OS
110
PC
APPLICATION
100

FIG.2

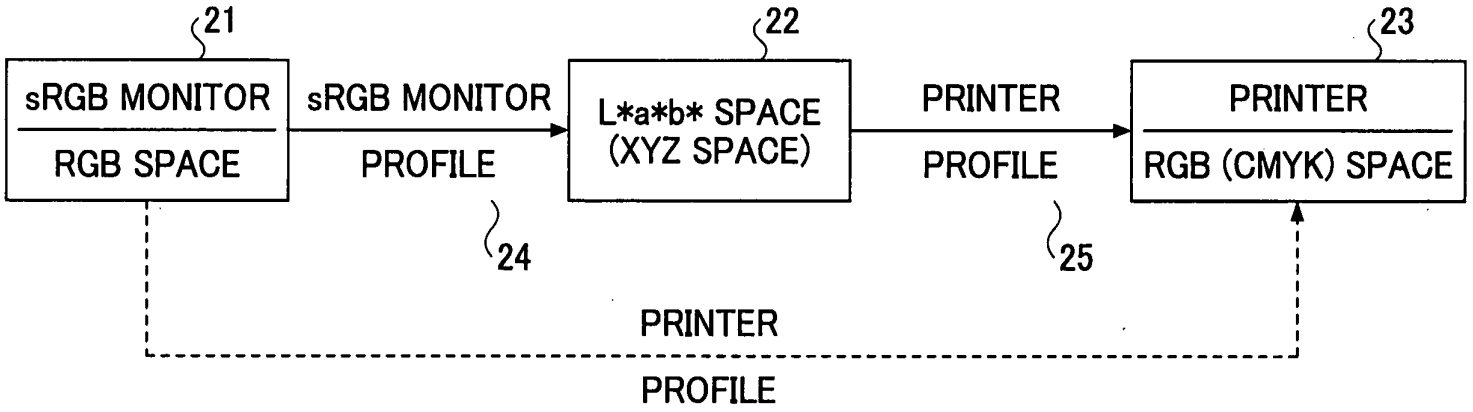

21
sRGB MONITOR
RGB SPACE
sRGB MONITOR
PROFILE
24
22
L*a*b* SPACE
(XYZ SPACE)
PRINTER
PROFILE
25
23
PRINTER
RGB (CMYK) SPACE
PRINTER
PROFILE

FIG.3

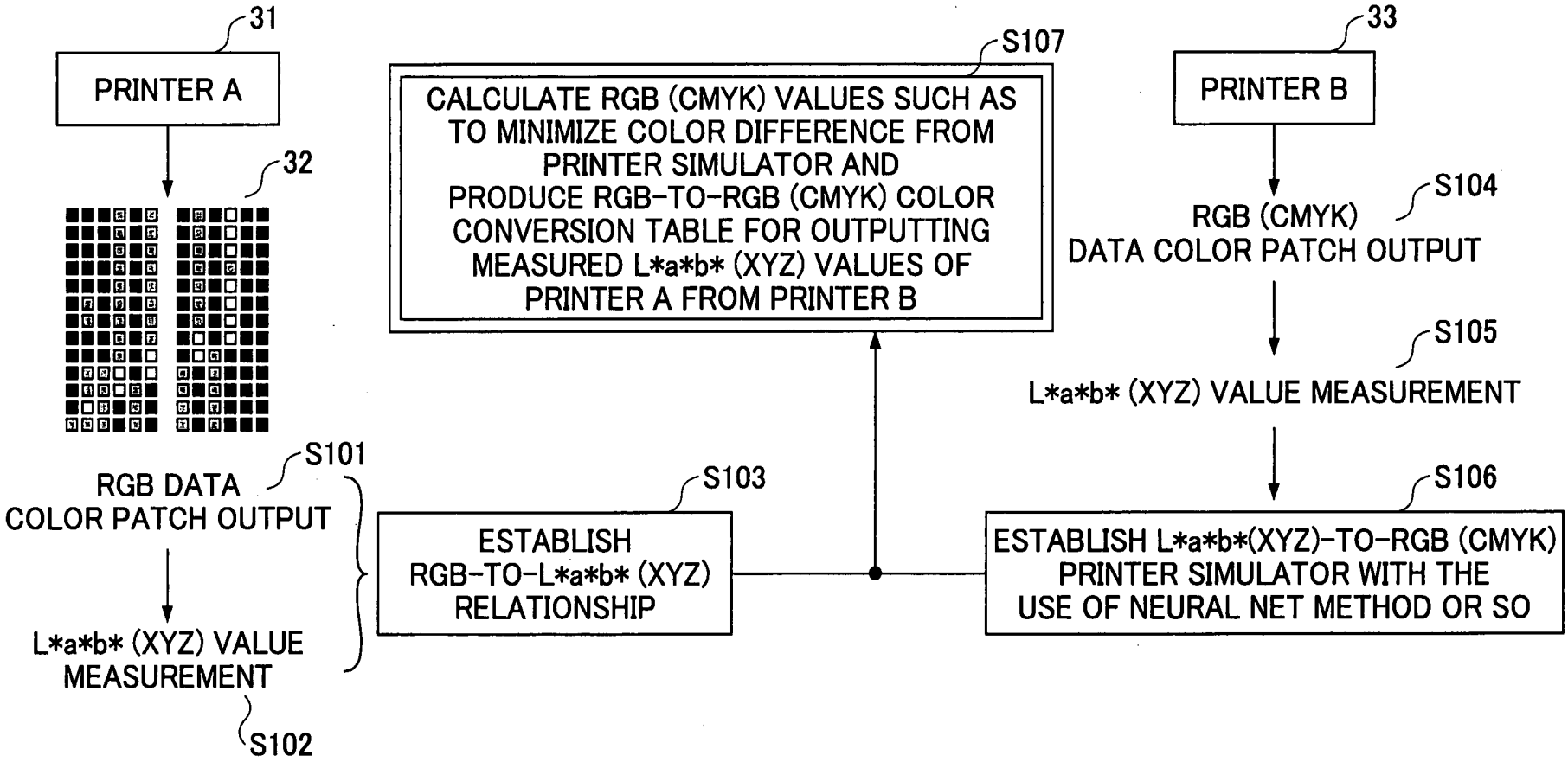

31
PRINTER A
32
S101
RGB DATA
COLOR PATCH OUTPUT
L*a*b* (XYZ) VALUE
MEASUREMENT
S102
S107
CALCULATE RGB (CMYK) VALUES SUCH AS
TO MINIMIZE COLOR DIFFERENCE FROM
PRINTER SIMULATOR AND
PRODUCE RGB-TO-RGB (CMYK) COLOR
CONVERSION TABLE FOR OUTPUTTING
MEASURED L*a*b* (XYZ) VALUES OF
PRINTER A FROM PRINTER B
S103
ESTABLISH
RGB-TO-L*a*b* (XYZ)
RELATIONSHIP
33
PRINTER B
S104
RGB (CMYK)
DATA COLOR PATCH OUTPUT
S105
L*a*b* (XYZ) VALUE MEASUREMENT
S106
ESTABLISH L*a*b*(XYZ)-TO-RGB (CMYK)
PRINTER SIMULATOR WITH THE
USE OF NEURAL NET METHOD OR SO

FIG.4

	COLOR PATCH (INPUT VALUES FOR PRINTER A)			MEASURED VALUES ON OUTPUT MATTER FROM PRINTER A			ORIGINAL OUTPUT RGB VALUES IN PRINTER B			COLOR SIMULATION RGB VALUES		
	R	G	B	L	a	b	R	G	B	R	G	B
1	0	0	0	17.53	0.70	0.36	0	0	0	0	0	0
2	0	0	64	20.61	-0.82	-31.31	1	30	81	2	60	143
3	0	0	128	25.52	-1.97	-39.85	1	71	155	6	78	188
4	0	0	192	27.90	0.53	-47.11	1	101	224	5	86	246
5	0	0	255	30.09	4.02	-53.26	2	104	230	33	88	255
6	0	64	0	29.21	-41.39	14.94	43	86	1	5	116	0
7	0	64	64	30.30	-35.55	-5.80	12	86	76	0	116	68
8	0	64	128	32.11	-8.44	-44.99	1	93	176	9	107	216
・ ・ ・												
118	255	192	128	73.49	20.35	21.94	255	160	115	255	145	142
119	255	192	192	73.23	25.72	0.84	255	159	184	255	138	206
120	255	192	255	72.84	28.22	-14.21	247	151	255	226	139	255
121	255	255	0	85.60	-5.95	94.91	255	255	54	255	248	0
122	255	255	64	86.85	-7.98	77.87	255	255	90	250	255	47
123	255	255	128	87.82	-7.90	56.07	255	255	123	248	250	90
124	255	255	192	89.45	-4.38	21.83	255	255	169	255	247	160
125	255	255	255	90.99	0.69	-3.12	255	255	255	255	255	255

FIG.5

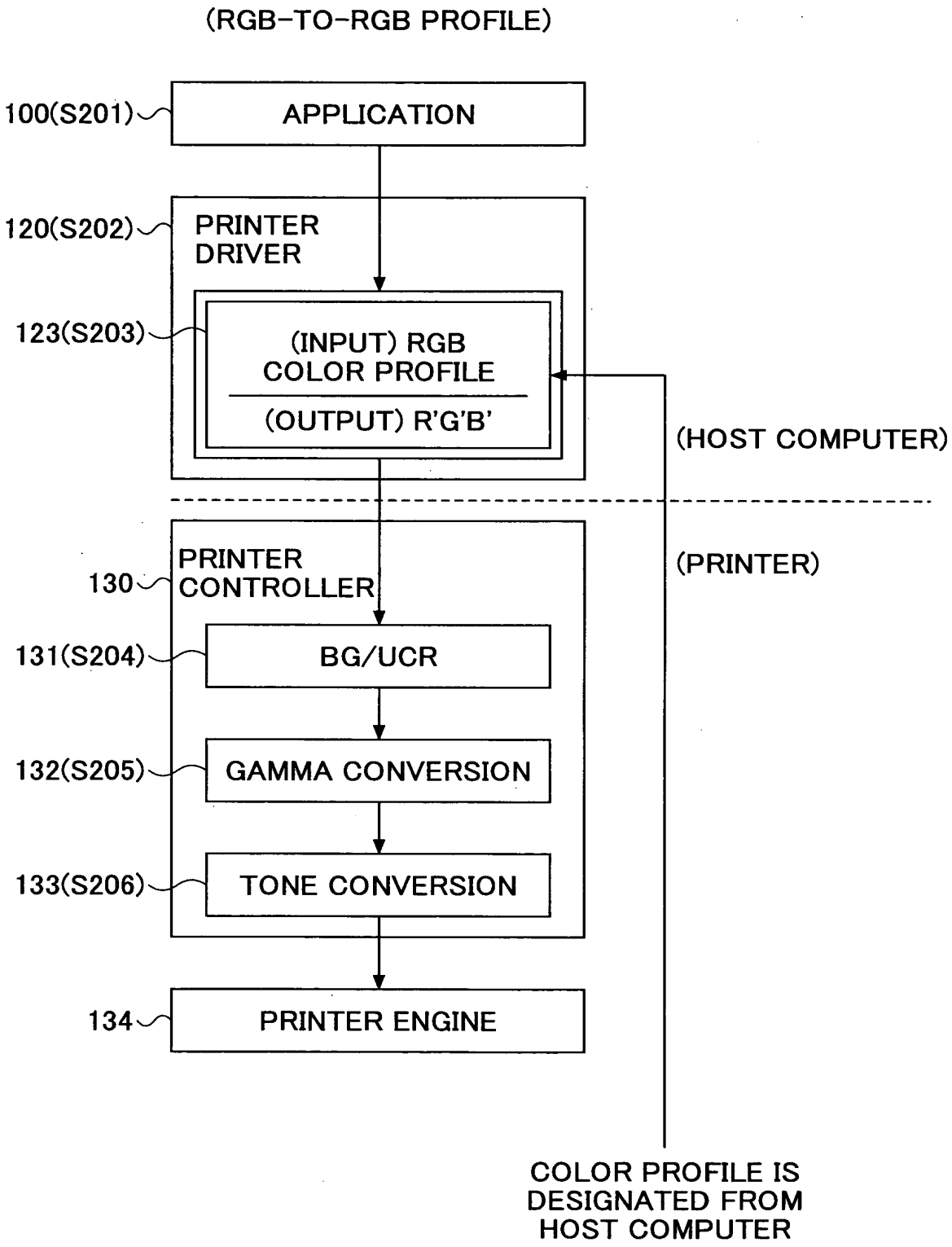

(RGB-TO-RGB PROFILE)
100(S201)
APPLICATION
120(S202)
PRINTER DRIVER
123(S203)
(INPUT) RGB COLOR PROFILE
(OUTPUT) R'G'B'
(HOST COMPUTER)
(PRINTER)
130
PRINTER CONTROLLER
131(S204)
BG/UCR
132(S205)
GAMMA CONVERSION
133(S206)
TONE CONVERSION
134
PRINTER ENGINE
COLOR PROFILE IS DESIGNATED FROM HOST COMPUTER

FIG.6

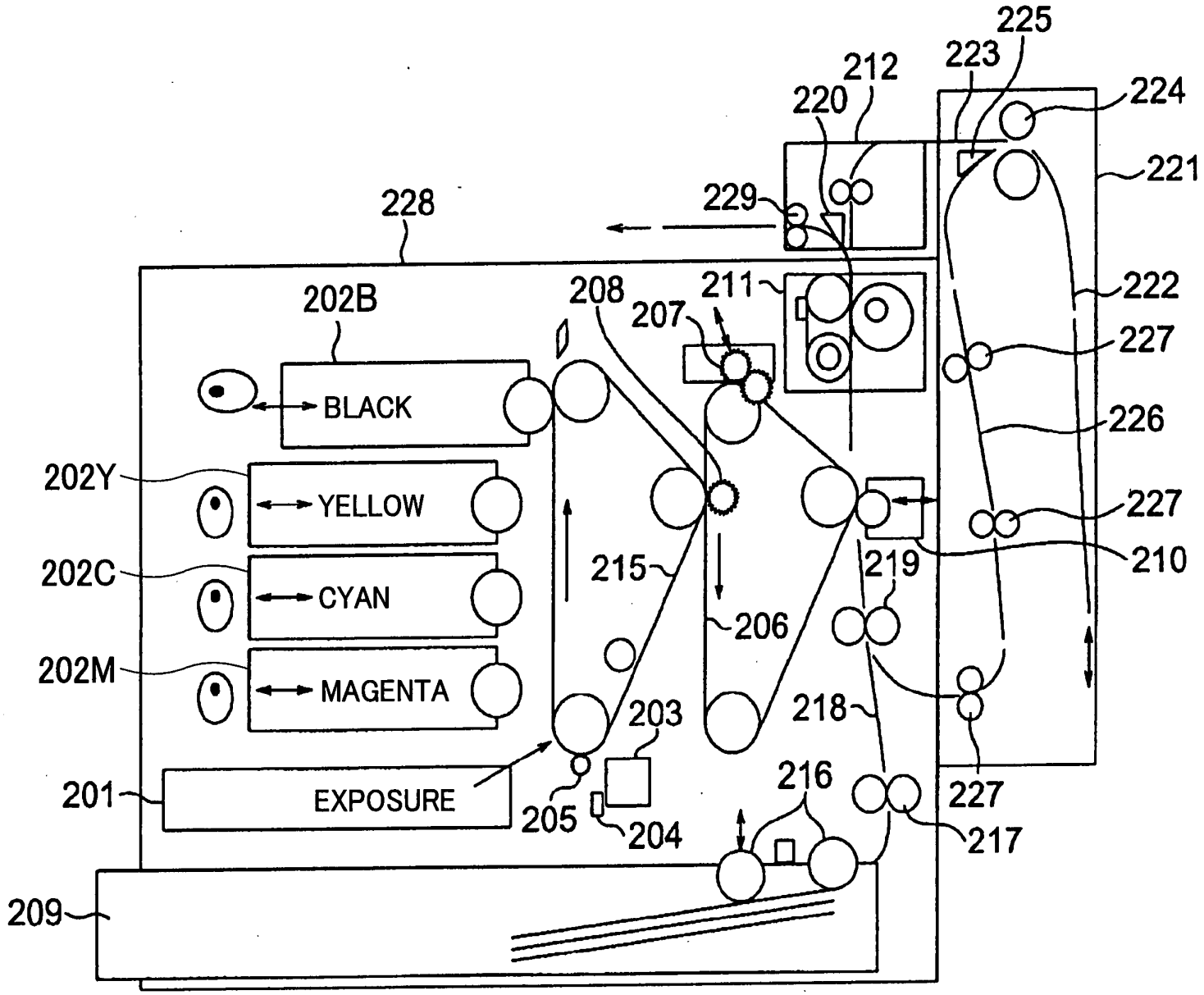

225
223
212
220
224
221
228
229
202B
208
211
207
222
227
BLACK
226
202Y
YELLOW
227
202C
CYAN
215
219
210
206
202M
MAGENTA
218
203
216
201
EXPOSURE
205
204
227
217
209

FIG.7

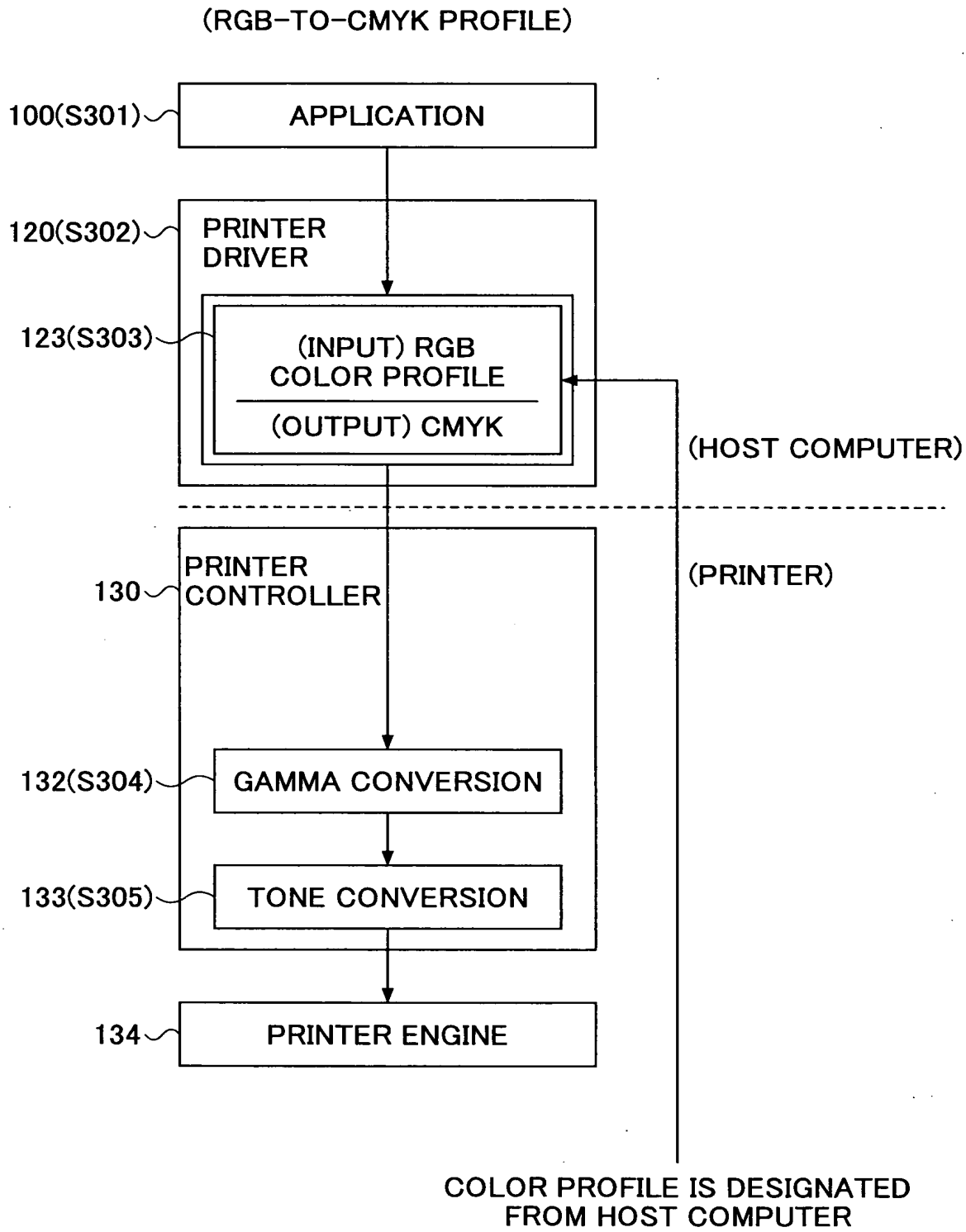

(RGB-TO-CMYK PROFILE)
100(S301)
APPLICATION
120(S302)
PRINTER DRIVER
123(S303)
(INPUT) RGB COLOR PROFILE
(OUTPUT) CMYK
(HOST COMPUTER)
(PRINTER)
130
PRINTER CONTROLLER
132(S304)
GAMMA CONVERSION
133(S305)
TONE CONVERSION
134
PRINTER ENGINE
COLOR PROFILE IS DESIGNATED FROM HOST COMPUTER

FIG.8

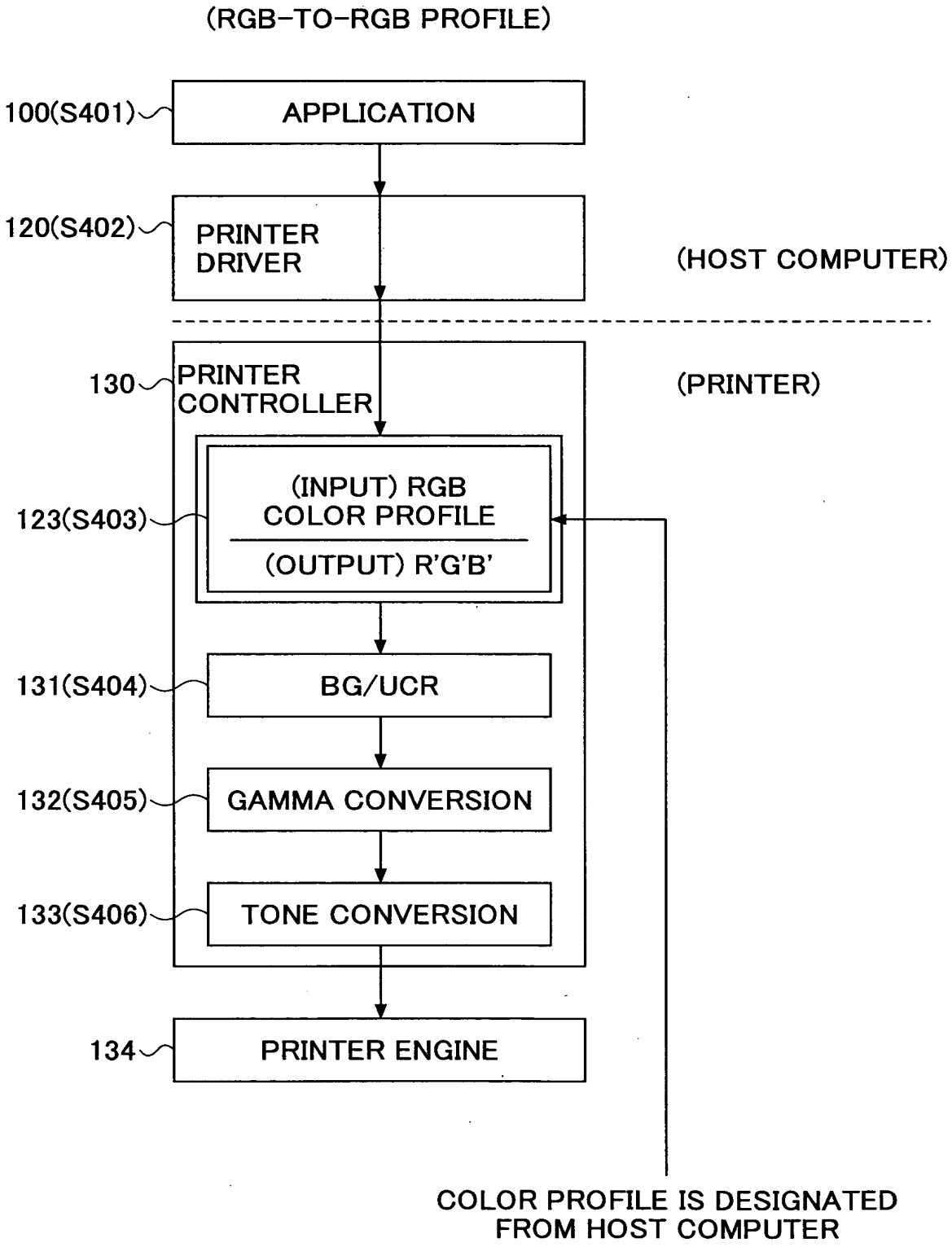
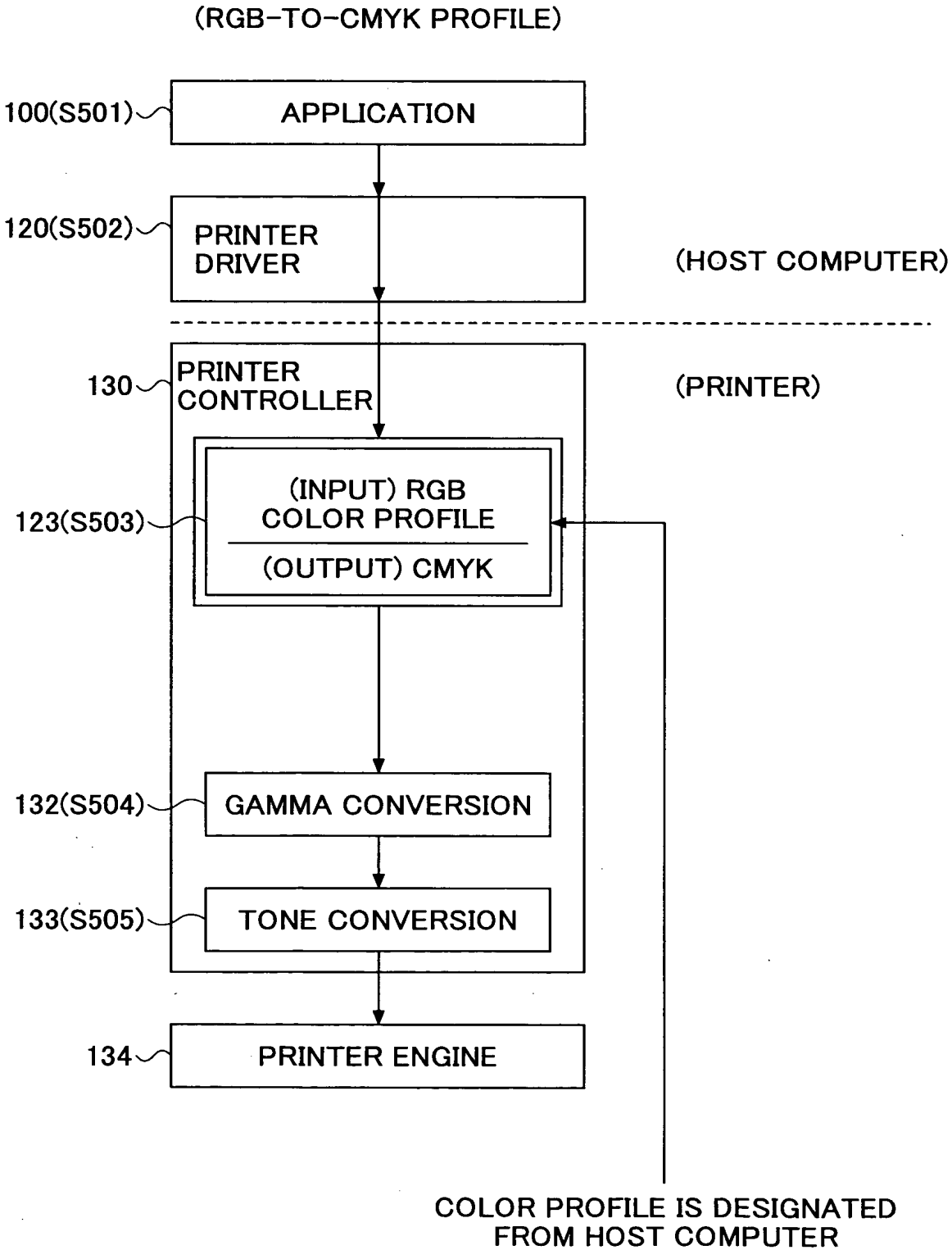

(RGB-TO-RGB PROFILE)
100(S401)
APPLICATION
120(S402)
PRINTER DRIVER
(HOST COMPUTER)
130
PRINTER CONTROLLER
(PRINTER)
123(S403)
(INPUT) RGB COLOR PROFILE
(OUTPUT) R'G'B'
131(S404)
BG/UCR
132(S405)
GAMMA CONVERSION
133(S406)
TONE CONVERSION
134
PRINTER ENGINE
COLOR PROFILE IS DESIGNATED FROM HOST COMPUTER

FIG.9


(RGB-TO-CMYK PROFILE)
100(S501)
APPLICATION
120(S502)
PRINTER DRIVER
(HOST COMPUTER)
130
PRINTER CONTROLLER
(PRINTER)
123(S503)
(INPUT) RGB COLOR PROFILE
(OUTPUT) CMYK
132(S504)
GAMMA CONVERSION
133(S505)
TONE CONVERSION
134
PRINTER ENGINE
COLOR PROFILE IS DESIGNATED FROM HOST COMPUTER